/152 cont./

286 the beginning or end warp thread of the carrying band in an eyelet of the bag.

The making of the woolen coca pouch (kwatandyáha), literally "lime pouch," the size of which varies between 12 and 35 centimeters, is done in the same technique as the manufacture of the fiber bags. The process, after the bottom is made, is done in three sections, the middle one of which stands out externally because of its colored, chessboard-like pattern, which is bordered above and below by a row of triangles. Since this colored section is likewise plaited from the bottom to the upper rim, thread of a different color is required for each change of color. These threads of a different color are twisted into ropes in the same way as in the case of the fiber bags and held together with a wool thread which serves as a plaiting needle. The number of /153/ colored squares in the unit area is constant, and their arrangement, conditioned by the plaiting, is necessarily diagonal (Ills. 154 /see p. 268 / and 203 /see p. 290 /).

286 286 531

286 The fastening of the carrying band, made by plait-weaving (see below /see p. 85 /), to the coca bag is done in the same way as that of the carrying band of the fiber bag.

The fabrics made by the knot technique are generally wide-meshed and include primarily the various kinds of nets. The knots are formed by tightly pulling suitable loops or interlacings so that the more or less loose meshes cannot shift. To obtain uniform meshes, the bird nets (ōka) and hammocks of the Paez are worked with a mesh stick whose height of about five centimeters corresponds to the size of the mesh (Fig. 31 /see p. 255 /). The material is the twisted agave thread. To make the net -- and the hammock -- the loops of the rows of meshes are made by means of the "symmetrical knot" (Fig. 34c /see p. 256 /). For this the ascending thread travels from back to front over the open part of the mesh and, passing over the latter horizontally, runs downward again in the loop produced. The mesh stick is always pressed from below firmly against the row of knots above, whereby the new knots bind it in tightly on its underside. This produces perfectly uniform meshes. The dimensions of the bird net -- spread out -- may reach a size of five by 20 meters.

/159 cont./

286 for which only certain red threads are used, the weaver counts
294 the required number and holds these up for the time being with a special shed rod consisting of a small piece of reed. The red warp threads not required fall down under and appear on the back side of the band, in part as a negative pattern and in part covered by the white warp threads.

• [531] No patterns exist for the weaving designs. In general it is a matter of traditional forms -- human beings, rhombuses, triangles -- although imaginative women include Latin letters in their store of ornaments.

On account of the space required for the arrangement for the mechanical shed formation, the band terminates in loops about ten centimeters long, which are removed from the cross-rod and plaited circularly with four strips each.

f) Plait-weaving

286 Whereas the carrying bands of the fiber bags (yáha) are woven in the technique of rod weaving in linen texture, the wool carrying /160/ bands of the coca pouches (kwatandyáha) are made in the plait-weaving technique. This means textile techniques which are not weaving because of the lack of mechanical shed formation in the manufacturing, but which also do not represent plaiting because of the vertical and horizontal course of their threads. The bands are about 1.50 centimeters wide and 76 centimeters long. At a superficial glance they give the impression of being plaited freehand because of their thickness. Their thickness results, however, from the turning and simultaneous crossing of the warp threads in the plaiting (cf. Ill. 152 /see p. 267/).

To make the band a frame similar to the one for weaving the carrying band for the fiber bag is required. The warp threads are stretched in the same way; the beginning and end are fastened to a similar cross-stick. Warp and weft are perpendicular to each other, but there is no mechanical shed formation.

/160 cont./

286
• 53/ For the plaiting process, which proceeds from the top down, there are stretched beside one another -- in their sequence -- four red warp threads, four white, four blue, four white, and again four red threads. At the start, two to three centimeters are woven in the customary linen texture. Then begins the plaiting of the band with the rhombus design. To do this, the weft, made up of one red thread, is drawn through two like-colored warp threads twisted one over the other. The twisting of the warp threads first goes in an inward direction; thus the right warp threads are twisted to the left, the left ones to the right, but always in a complete turn of 360°. Their sequence after the twisting is exactly as before. To form the rhombus design, the twisted warp threads are at the same time crossed under one another.

To lead back the weft threads, the still crossed warp threads are beaten from below upward with a pointed shed rod, usually the weaving sword, and the weft thread is led back through the opening thus made. This releases the twist of the warp threads. Now the position of the warp and weft threads once again corresponds to the normal linen texture.

To complete the rhombus, that is, to form the lower part, the warp threads are now reversed, twisted from the inside to the outside, and then one proceeds appropriately in the same manner as described.

The weft threads are pulled quite taut so that they disappear within the texture, and only the warp threads are to be seen. Their distance from one another -- conditioned by the twisted warp threads -- is relatively great.

/161/The decisive characteristic of this plait-weaving and its distinction from the weaving of the patterned belts of the women (tâw) consists in the fact that the same patterns appear on the front and back side of the plaited band, though always shifted by half of their dimensions.

As variants of the simple rhombus pattern described, there may be two rhombuses next to each other or five small rhombuses in a diagonal arrangement. In this case the back side does not

/161 cont./

286 show the same design, but rather one that results from the cross-
● 531 ing of the twisted warp threads.

g) Dyeing

386 The Paez feel that black is the most beautiful color.
824 Hence almost all the home-woven garments of the men and
[822] women are dyed black, and only rarely does one see articles of clothing in the yellowish-white natural color of sheep wool.
[462] Dyeing is women's work and is done with certain plants, which, however, dye only the animal material used in weaving, but
[294] not that from plants. This peculiarity of the dyes is utilized by the Paez to make patterns in their clothing by weaving into the sheep-wool fabrics a few cotton warp threads, which, in the subsequent dyeing, retain their original color.

Every woman is in a position to dye her home-woven fabrics black. To do this the pieces of fabric are boiled in a pot for about two hours, along with the leaves of the šal tree or the zóte tree (according to Hernandez, 1946, p. 944, with the leaves of a Phyllanthus) and then buried for two days and two nights with these leaves in a pit in black, rich humus earth (ašáktič). Then they are taken out again, washed thoroughly, and allowed to dry. The black dye is now lightfast and waterproof. The cotton ornamental stripes in the women's clothing, which are not affected by this dyeing process, are either natural
[283] in color, red, or green. They are bought by the women in the desired color, since cotton is not spun by the Paez.

386 The threads of different colors used to make the coca bags
824 and the women's belts were originally all dyed by the Paez
177 women with vegetable dyes. Today this is done only in part,
[439] for anyone who has the money buys aniline dyes at the market in Inzá or Belalcázar; they are more popular because of their stronger coloring and greater luminosity. Similarly, the cotton purchased in thread already dyed is more popular for making women's belts, since it is brighter or more brilliant.

/162/

386 824 The following colors are produced with vegetable dyes: red (mbe; also the color designation for pink, ocher, brown) with the roots of a plant called béwoetse. (According to Hernandez, this is the Rubiaceae Relbunium hypocarpium.) The wool threads are boiled with these roots for about an hour and they are then put in the sun. For blue coloring (séin; light blue = séin-séin) the threads are boiled with the leaves of the indigo tree for an hour; for green coloring (oálye séin; oálye = species of bird with green feathers, thus literally "oálye blue"), with the leaves of the tamp tree; and for yellow coloring (skĩtc), with the leaves of the mũzec tree. The results of the dyeing are not always uniform. There are always deviations in the color. With a little experience, however, one can differentiate them from the purchased chemical dyes.

h) Pottery

323 The art of pottery is very little developed among the Paez and is essentially limited to larger or smaller, crudely fashioned, spherical-shaped pots (mĩtc) with a lip slightly curved outward. In use they are not hung up, but placed between the three hearthstones for cooking. Smaller, shallower bowls serve for roasting [531] the coca leaves. There are no vessels with handles. There is no ornamentation of any kind, neither painting, nor incising, nor [415 531 824] finger imprints. For drinking chicha or for fetching water only gourd calabashes (tóka) are used, which are exactly as unadorned and purely functional as the ceramic vessels.

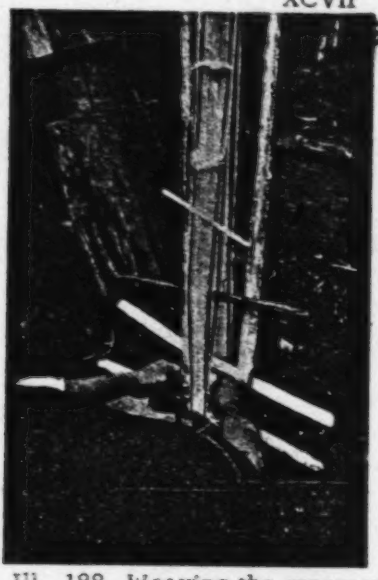
323 463 The making of pots is a specialist's work. In Calderas there are three potters, two of whom are women. Only one of them, however, Santos Kiskue, works to keep a supply, whereas the other two make pots only on order. Santos Kiskue is about 40 years old and has a wife and four living children; four others [437] are dead. He has a horse, but no cow and no sheep. The latter he can do without, since he barters his pots chiefly for wool.

The technique of pottery among the Paez is a spiral coil technique. Since the shapes are very simple, a special

1: Nachtigall--284 E-5 (1952-1953) 1955 SC15 Paez SC15

286

Ill. 187. Making a woman's colored belt.



Ill. 188. Weaving the ornamental warp.

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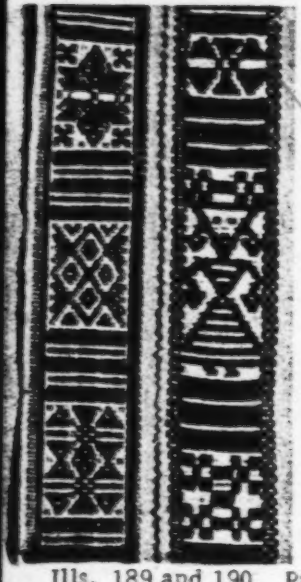

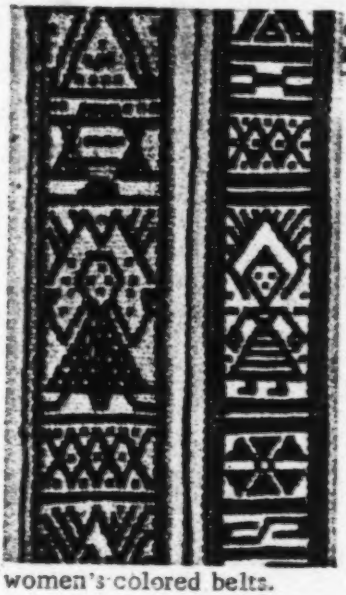

Ills. 189 and 190. Pattern of the women's colored belts.

2: Pittier de Fábrega E-4, 5 (1906) 1907
SC15 Paez SC15

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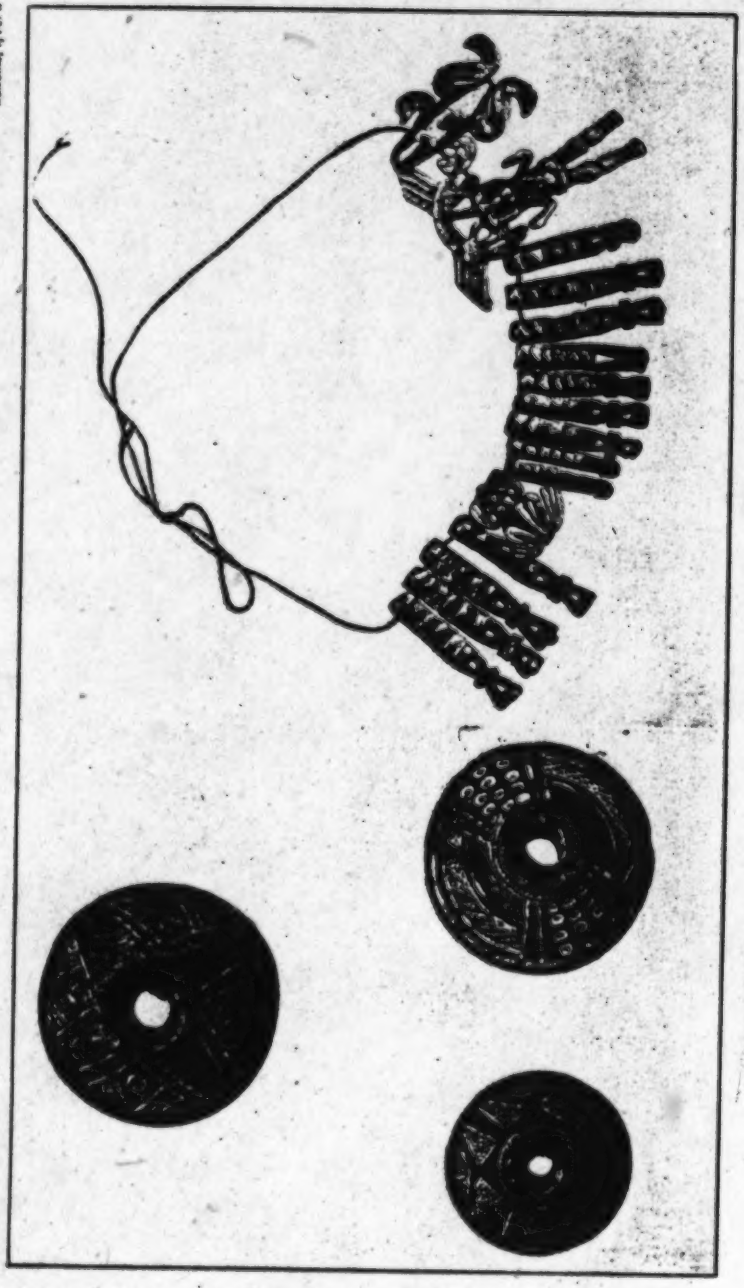
301



172
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283

[facing P.307]

2: Pittier de Fábrega E-4, 5 (1906) 1907
SC15 Paez SC15

emeralds, and other objects, were ruthlessly destroyed or scattered about, without consideration for their archeological or even for their intrinsic value. Among the pieces of pottery more commonly found are the small elegantly designed disks, or spindle-whorls, of which I procured several specimens for the United States National Museum (plate II, 1). I obtained also a minutely wrought spider, and one of the gold fish-hooks that are often met with on sand beaches along the streams.

The principal Jamundi relic of Agua Sucia, and which is not likely to be displaced for some time, is the so-called "Piedra de los Sacrificios," an immense block of old eruptive stone, covered with pictographs (plate III, 1). The miners and peasants living in the district believe that a definite meaning is attached to these rude drawings, and possibly some speculative archeologist will see in them more or less mystic symbolism that my lesser imagination fails to discover; for I think we must be contented with regarding them simply as the product of representative art in its infancy. A few of the glyphs are reproduced here, some giving an idea of the geometric notions of the draftsmen, while the others are rudiments of the art of designing (plate II, 1, and figures 1, 2).

On the way to Tacueyó I became acquainted for the first time with a so-called "plano de Indio," such as are found at short intervals on the mountain ridges of the entire Cauca region. While pursuing our way on the top of a very narrow spur, we suddenly found that the crest was cut across by a very deep ditch that showed every evidence of having been the work of man. Beyond this ditch the top of the hill had very probably been artificially leveled off so as to form a plane surface of about 15 meters in width and 20 meters in length. At the end of this esplanade the hill is cut by another ditch, identical with the first. The distance between the two ditches is very much greater than the length of the esplanade, amounting to more than 100 meters.

According to all indications, the level space was the site of an Indian house, and that part of the hill between the ditches is generally found to be full of graves, those on the house site

2: Pittier de Fábrega E-4, 5 (1906) 1907
SC15 Paez SC15

inhabitants of these valleys established their residences, I may mention that the highest "plano" on the cordillera was found at about 3,300 meters at El Alto de las Cruces, one of the spurs of the Páramo de Buena Vista, the limit of the forest being here

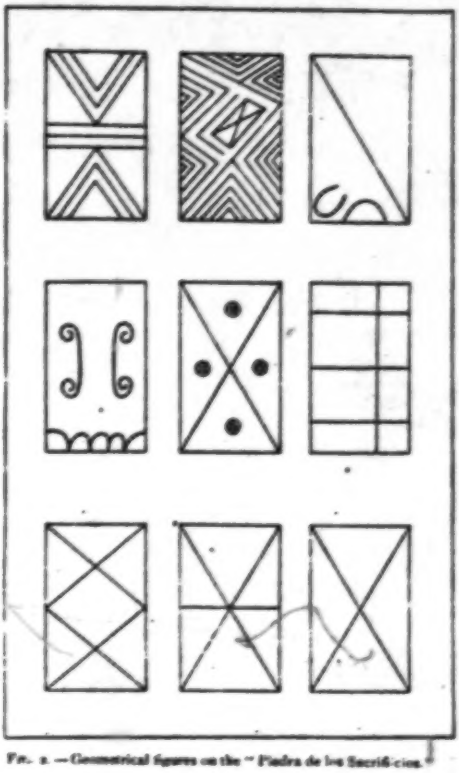

FIG. 2.—Geometrical figures on the "Piedra de los Sacrificios."

at about 3,600 meters. The greatest altitude of the abodes of the present Indians scarcely exceeds 2,600 meters.

While on this subject I shall mention an explanation of the "planos" as it was given by one of our Indians. "In old days,"

6: Bernal Villa--105 E-5 (1952-1953) 1954 SC15 Paez SC15

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Tierradentro XI. Indian of Calderas, showing the typical manner of wearing the kuetand yaha and the yahas (fique pouches). In the background, the Parque Arqueológico of Tierradentro.

7:Hernández de Alba E-5 (no date) 1948 SC15 Paez SC15
Moguex

blue, the fruit of the jagua palm (kii), probably *Genipa* sp. A woven fabric is made black by burying it for several days with clay and branches of a *Phyllanthus* which they call "sal."

They make woolen bags by hand, using a kind of crochet technique without needles, and decorate them with rectangular and rhomboid figures. Some bags are made of hemp (fique), in which case the stitches are larger and the article has greater elasticity.

Weapons.—For weapons, the *Páez* used large, thick lances of black or chonta palm, 20 to 25 palms or more long, clubs or macanas, stones thrown with slings, large rocks rolled down from heights, spear throwers like those used by the *Chibcha*, and shields of jaguar, puma, or deerskin. The *Páez* quickly adopted iron arms from the Spaniards, and in the last wars of the Conquest they used steel swords and knives. In a recently discovered grave were copper bells, a golden breastplate, shield bars of tumbaga, a Spanish dagger, and a curved knife of the Arabian or north African type used by the conquistadors.

Today the *Páez* use the club or macana, ordinary guns, machetes, knives, and, for killing birds, the blowgun.

Fire making.—Fires are generally made today with flint and steel, but some Indians use modern matches. For both heating and cooking, the fire is made on the ground in the main house, surrounded by stones which help support the pots. It is covered at night, and almost never goes out.

Illumination is provided not only by the fire but by candles made of wax from the wax palm and from seeds of a wild laurel. The latter are cooked and pressed in a bag so that the wax drips into a half calabash or pot to form a semispherical lump. It is melted to make candles with cotton wicks. The *Páez* use these themselves and also sell them, for they are superior to candles made of animal tallow. A cruder means of lighting consists of transfixing a large number of "higuerilla" seeds on a long, thin bamboo splinter. When the splinter is laid horizontally and lighted, the first seed burns strongly, after which the flame passes from seed to seed, lasting some 15 minutes and throwing a fair light a few feet around.

COMMERCE

Each week a market is held in the municipio or in some of the small native villages (pls. 190, 191). The Indians sell vegetables, tortillas, eggs, chickens, and laurel wax, and buy salt, brown sugar, and especially lime (mambe) to be chewed with coca. Each product has a price in Colombian money, whether by quantity or weight. The unit of weight is called an "egg," and more or less equals the weight of a chicken egg. After his few customary transactions, paid for either in cash or in terms, in which the future coffee crop is mortgaged to the